Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-25. (Canceled)

26. (Original) A method of detecting a genetically transmitted immune system dysfunction in a mammal, wherein the dysfunction is associated with a glycosylation disorder, the method comprising:

a) providing a sample from a mammal, wherein the sample comprises a plurality of glycoconjugates;

b) contacting the sample with either or both of:

a first type of diagnostic reagent that binds to a glycoconjugate that has an oligosaccharide determinant that: i) is present on glycoconjugates in a sample obtained from a mammal that has the immune system dysfunction, and ii) is not present on glycoconjugates in a sample obtained from a mammal that does not have the immune system dysfunction; and

a second type of diagnostic reagent that binds to a glycoconjugate that has an oligosaccharide determinant that is: i) is present on glycoconjugates in a sample obtained from a mammal that does not have the immune system dysfunction, and ii) is not present on glycoconjugates in a sample obtained from a mammal that has the immune system dysfunction; and

c) determining whether the diagnostic reagent binds to the glycoconjugates in the sample, wherein the binding of a diagnostic reagent of the first type, or the absence of binding of a diagnostic reagent of the second type, is indicative of the presence of the immune system dysfunction in the mammal.

27. (Original) The method of claim 26, wherein the immune system dysfunction is B lymphocyte dysfunction.

28. (Original) The method of claim 27, wherein the presence of the immune system dysfunction is associated with reduced binding to a detection reagent which comprises SNA or CD22.

29. (Original) The method of claim 28, wherein the detection reagent comprises CD22-Ig.

30. (Original) The method of claim 26, wherein the immune system dysfunction is cytotoxic T cell deficiency.

31. (Original) The method of claim 30, wherein the presence of the immune system dysfunction is associated with increased binding of a detection reagent which specifically binds to Galβ1-3GalNAc but does not bind to Siaα2-3Galβ1-3GalNAc.

32. (Original) The method of claim 31, wherein the detection reagent comprises PNA lectin or Jacalin.

33. (Original) The method of claim 30, wherein the presence of the immune system dysfunction is associated with reduced binding of a detection reagent which specifically binds to α2-3-linked sialic acids.

34. (Original) The method of claim 33, wherein the detection reagent comprises a MAL II lectin.

35. (Original) The method of claim 26, wherein the immune system dysfunction is myeloid deficiency.

36. (Original) The method of claim 35, wherein the presence of the immune system dysfunction is associated with reduced binding to a detection reagent which specifically binds to Core 2 type O-glycans.

37. (Original) The method of claim 36, wherein the detection reagent comprises an antibody selected from the group consisting of B220 and 1B11.

38-51. (Canceled)